

ARIZONA GAME AND FISH DEPARTMENT HABITAT PARTNERSHIP COMMITTEE HABITAT ENHANCEMENT AND WILDLIFE MANAGEMENT PROPOSAL

Game Branch / HPC Project Number: 15-519

PROJECT INFORMATION

Project Title: Derrio Water Catchment Construction

Region and Game Management Unit: Region 5, GMU 37A

Local Habitat Partnership Committee (LHPC):
• Tucson

Was the project presented to the LHPC?
YES[X] NO[]

Has this project been submitted in previous years? YES[] NO[X]

If Yes, was it funded? YES[] NO[] → **Funded HPC Project #(s):**

Project Type: Wildlife Water Catchment Construction

Brief Project Summary: Many areas within GMU 37A lack perennial water sources and receive limited wildlife use as a result. The Vaquero Ranch installed a new solar pump on an existing well to feed a livestock trough in a new corral. However, the livestock water is not accessible to wildlife in the corral in the high walled livestock trough. Therefore, a separate storage tank and wildlife trough in a fenced off area is necessary to make water available to wildlife year-round. This new wildlife water catchments system will use the Vaquero Ranch solar pump as the main source of water.

Big Game Wildlife Species to Benefit (% benefit per species): mule deer (50%), javelina (40%), mountain lion (10%)

Implementation Schedule (Month/Day/Year):

Project Start Date: September 1, 2015

Project End Date: September 1, 2017

Environmental Compliance:

NEPA Completed: Yes[] No[X] N/A[]

Projected Completion Date: When funded

State Historic Preservation Office - Archaeological Clearance:
(Provide Attachment)

Yes[] No[X] N/A[]

Projected Completion Date: When funded

Arizona Game and Fish Department EA Checklist: N/A[]

To be Completed by: Joe Currie

Projected Completion Date: When funded

PROJECT FUNDING

Special Big Game License Tag Funds Requested: \$16,932.51

Cost Share or Matching Funds: \$15,165.60

Total Project Costs: \$31,991.31

PARTICIPANT INFORMATION

Applicant (please print):
Allison Dutt, AGFD

Address:
555 N. Greasewood Rd
Tucson, AZ 85745

E-mail:
adutt@azgfd.gov

Telephone: 520-240-1019

Date: 8/19/2015

AGFD Contact and Phone No. (If applicant is not AGFD personnel):

Project has been coordinated with:

Joe Currie, AGFD Development Branch; Clyde Weekly, Mule Deer Foundation; Eric Heberle, Vaquero Ranch

NEED STATEMENT – PROBLEM ANALYSIS:

The Vaquero Ranch installed a new solar pump on an existing well to feed a livestock trough in a new corral. However, the livestock water is not accessible to wildlife in the corral in the high walled livestock trough. Therefore, a separate storage tank and wildlife trough in a fenced off area is necessary to make water available to wildlife year-round. This new wildlife water catchments system will use the Vaquero Ranch's solar pump as the main source of water.

The Western Association of Fish and Wildlife Agencies (WAFWA) Mule Deer Working Group found that rainfall and availability of water were the two biggest limiting factors for wildlife in the Southwest Desert Ecoregion. The number one recommendation of the Group to improve mule deer management in the Southwest Desert Ecoregion was to create sources of water in areas where water is limiting and where other potentially limiting factors are being addressed. Also, consistent with the Group's recommendation is the Department's Species Management Guidelines (SMG) which provides goals, objectives, strategies and procedures for a specific species. The SMG outlines four ways to improve and enhance deer habitat to accomplish the overall goal of increasing mule deer populations to levels that provide diverse recreational opportunities. Number one on the list is: protect and maintain current water sources, and where water is lacking and the distribution and abundance of deer can be influenced, develop new water sources.

PROJECT OBJECTIVES:

This reliable water source will:

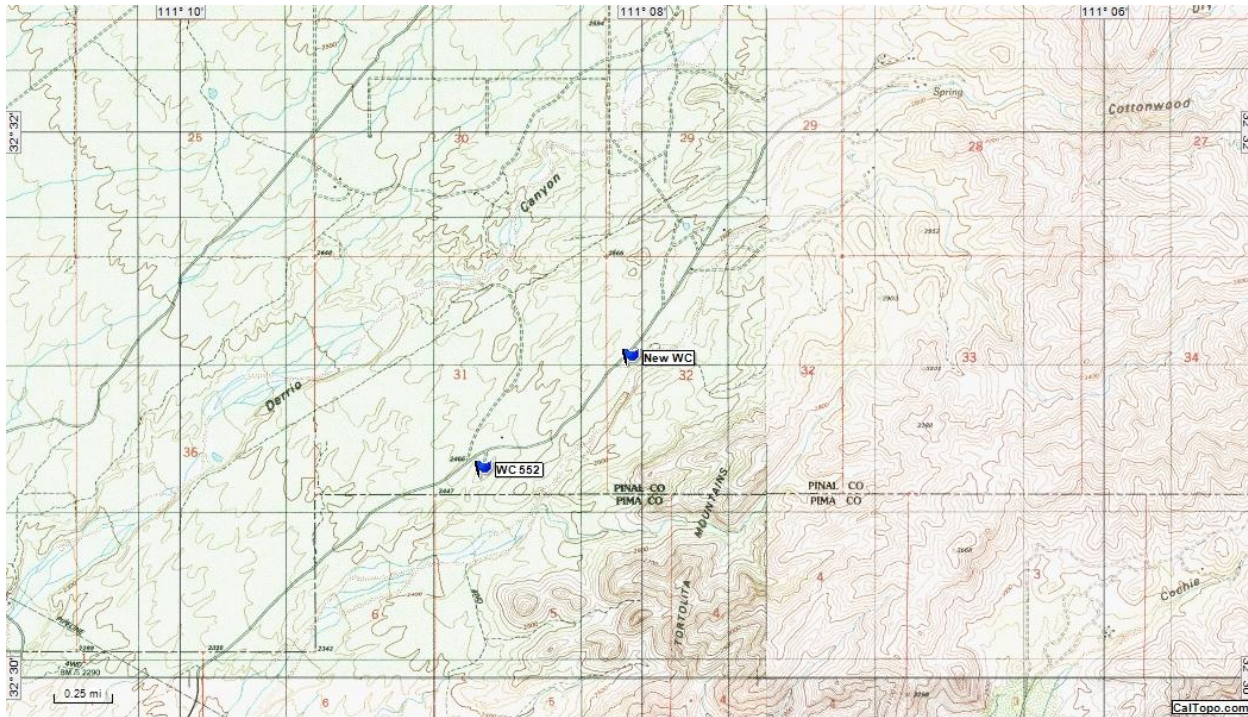
- Increase mule deer, and javelina populations by providing dependable, long term, self-sustaining, quality water sources.
- Increase hunter opportunity
- Install a system that has a long lifespan (40-50 years for storage and collection systems, 25 years for drinking troughs)
- Install a system that does not require supplemental hauling except in rare or exceptional circumstances
- Install a system that is accessible and that requires minimal routine maintenance
- To work cooperatively with ranchers to better manage both wildlife and livestock.

PROJECT DESCRIPTION AND STRATEGIES:

The a new wildlife water development system will be installed with three 2,500 gallon polyethylene water storage tanks, a 4' deep x 5' wide x 8' long polyethylene walk-in trough, and a 150' x 150' standard piperail fence. A trail camera and protective case will be added to observe and document wildlife using the updated catchment.

PROJECT LOCATION

This project is located in the Tortolita Mountains north of Tucson, and east of the town of Marana, in Game Management Unit 37A. The project will be located at GPS coordinates 32°31.173'N, 111°08.049'W.



LAND OWNERSHIP AT THE PROJECT SITE(S):

- The project site is on State Trust Land, administered by the Arizona State Land Department.

IF PRIVATE PROPERTY, IS THERE A COOPERATIVE BIG GAME STEWARDSHIP or LANDOWNER AGREEMENT BETWEEN THE LANDOWNER AND THE DEPARTMENT?

YES[] NO[] N/A[X]

HABITAT DESCRIPTION:

The primary biotic community in the western Tortolita Mountains is Sonoran desert scrub. Common vegetation around the project area includes, palo verde (*Cercidium microphyllum*), saguaro (*Carnegiea gigantea*), teddy-bear cholla (*Cylindropuntia bigelovii*), ocotillo (*Fouquieria splendens*), and triangle-leaf bursage (*Ambrosia deltoidea*). Average rainfall is 10-12", and the elevation is approximately 2,500'.

(SEE PICTURES ON NEXT PAGE)



ITEMIZED USE OF FUNDS:

Special Big Game License Tag Funds

2- 2,500 Gallon Polyethylene Water Storage Tanks	\$6,640.22
150' x 150' Standard Piperail Fence	\$3,607.65
4' deep x 5' wide x 8' long Polyethylene Walk-in Trough and Gutter	\$4,697.14
Plumbing	\$1,000.00
9 Rubber Mats (for under tanks)	\$487.50
<u>Remote Digital Monitoring Camera</u>	<u>\$500.00</u>
Total	\$16,932.51

Cost Share or Matching Funds

Volunteer Labor	\$5,058.80
<u>SSDV Crew and Vehicles</u>	<u>\$10,000.00</u>
Total	\$15,058.80

LIST COOPERATORS AND DESCRIBE POTENTIAL PARTICIPATION:

AGFD SS Development Branch (Design and Installation)
AGFD Region 5
Arizona State Land Department (Permits)
Mule Deer Foundation (Volunteer Labor)

WOULD IMPLEMENTATION OF THIS PROJECT ASSIST IN PROVIDING, MAINTAINING, OR FACILITATING RECREATIONAL ACCESS?

YES[] NO[] N/A[X]

PROJECT MONITORING PLAN:

Project would be monitored by SSDV up to and during redevelopment, to include all required federal and state compliance paperwork; all project material; all state and federal volunteer paperwork and a final construction completion report with 'as built' drawings. This information will be housed in AGFD SSDV Water Development hard files and the SSDV Water Development database located at the AGFD Headquarters, 5000 W. Carefree Highway, Phoenix, AZ 85086. Regular welfare monitoring will occur as deemed appropriate by the GMU 37A Wildlife Manager.

A remote digital camera will be used to monitor density and frequency of wildlife water use. This will enable the Wildlife Manager to make better informed decisions for the management of wildlife within GMU 37A.

Water levels will be monitored at least twice per year with emphasis during the warmer drier months by the Wildlife Manager. Additional monitoring will be conducted as needed.

PROJECT MAINTENANCE:

Any project maintenance will be assumed by the AGFD SSDV Branch and AGFD Region V. Minor maintenance will also be conducted as needed by the Wildlife Manager. The AGFD Development Branch will be responsible for major maintenance issues

PROJECT COMPLETION REPORT TO BE FILED BY:

A. Dutt, AGFD Region V GMU 38M/37A Wildlife Manager

WATER DEVELOPMENT PROJECTS (please use the worksheet below):

ARIZONA GAME AND FISH DEPARTMENT WATER DEVELOPMENT WORKSHEET

PROJECT TITLE: Derrio Water Catchment Construction

- 1) **Is the water development listed as a priority in the most recent "Wildlife Water Development Annual Implementation Schedule?"**
No
- 2) **Please list the Development Branch personnel and date coordinated with for this project.**
Joe Currie and Tobbie McMillan, July 22, 2015
- 3) **What is the estimated annual inches of precipitation for the area? (mark one)**
☐2-4 ☐4-6 ☐6-8 ☐8-10 ☒10-12 ☐12-14 ☐14-16 ☐ >16
- 4) **Is there a perennial water source available to big game within four miles of this project?**

YES☒ (please complete #5 below) NO☐ (skip #5 below)
- 5) **For the accessible, perennial water source nearest this project:**
Name of water source: Water Catchment #552 Tortolita West
Type of water source (catchment, spring, dirt tank): Concrete Wildlife Water Catchment
Ownership of water source: AGFD
Distance in miles from project: 0.08 miles
- 6) **Is the target wildlife species a result of transplant efforts?** YES☐ NO☒
- 7) **Please list any special land management status for the project site (i.e. Wilderness, National Park, National Monument). If private land, list landowner.**
N/A
- 8) **Please provide the following information about access to the proposed site:**
Type of access (mark one): ☒2x4 vehicles ☐4x4 only ☐foot only**

**If foot access only: Distance in miles: _____ Approximate hiking time: _____

-- Does access to this site require crossing private or tribal lands? YES☐ NO☒

-- Please describe any restrictions to public access: None
- 9) **Please list below (or on a separate sheet) the material type and dimensions of each component proposed to be added, modified, or repaired.**
2- 2,500 Gallon Polyethylene Water Storage Tanks
9 Rubber Mats (for under tanks)
150' X 150' Standard Pipedrail Fence
4'deep X 5'wide X 8'long Polyethylene Walk-in Trough and Gutter
3" Schedule 80 PVC Plumbing w/ 2 3" Brass Ball Valves in Large Valve Boxes

10) Was a site visit completed? Yes[X] No[]

If Yes, please list personnel that attended and date.

July 22, 2015: Allison Dutt, AGFD Wildlife Manager 38M/37A; Joe Currie and Tobbie
McMillan, AGFD Development Branch

ARIZONA GAME AND FISH DEPARTMENT

VOLUNTEER HOURLY RATES AND CLASSIFICATIONS WORKSHEET

PROJECT TITLE: Derrio Water Catchment Construction

The value of volunteer labor should be calculated at the hourly rate of an employee doing similar work, or using hourly rates from the Arizona Department of Administration's Human Resource web site, plus a standard ERE rate of 35%. http://www.hr.state.az.us/ClassComp/CC_Job_Titles_with_Ranges.asp

\$0.445/mile should be the calculation used for mileage.

Water Development	Volunteer Hours	Volunteer Miles	Hourly Rate	Estimated Value
20 Volunteers	16 per volunteer	60 miles RT	\$14.14	5,058.80
Habitat Restoration and Clean Up	Volunteer Hours	Volunteer Miles	Hourly Rate	Estimated Value
			\$14.14	
Fisheries	Volunteer Hours	Volunteer Miles	Hourly Rate	Estimated Value
			\$14.14	
Nongame Branch Project	Volunteer Hours	Volunteer Miles	Hourly Rate	Estimated Value
			\$14.14	
Misc/office work	Volunteer Hours	Volunteer Miles	Hourly Rate	Estimated Value
			varies	
Community Services	Volunteer Hours	Volunteer Miles	Hourly Rate	Estimated Value
			\$7.44	
Events and Other	Volunteer Hours	Volunteer Miles	Hourly Rate	Estimated Value
			\$14.14	
Research Branch	Volunteer Hours	Volunteer Miles	Hourly Rate	Estimated Value
			\$14.14	
Wildlife Area Hosts	Volunteer Hours	Volunteer Miles	Hourly Rate	Estimated Value
			\$17.44	
Education Programs	Volunteer Hours	Volunteer Miles	Hourly Rate	Estimated Value
			\$16.07	
Totals				